

HORTUS DUROBRIVENSIS II.

Bernard Harkness

ABIES, Miller - Gard. Dict. 1754
PINACEAE -- Pine Family.

Abies alba, Mill.
SILVER FIR

c & s Europe

Miller - Gard. Dict. 1768

Bailey 91 (1948); Dallimore & Jackson 113 (1948)

Two trees, only, remain of plantings made of Silver Fir from 1897 to 1918, and although one has reached 50 feet in height its appearance is poor. Dry summer weather and injury from winter sun are the factors which limit their ornamental usefulness in Highland Park. Our plants all came from the Rochester nursery firm of Ellwanger and Barry and very likely were seed importations of northern origin. There may be strains better adapted to this area from its southern range in the Balkan mountains.

Abies alba f. *pendula* (Carr.) Rehd.
WEeping SILVER FIR Vosges mts., France

Rehder - Bibliog. of Cult. Trees & Shrubs (1949)

Bean I, 130 (1950); Hornibrook 20 (1938)

In nature this form is known only from the Vosges range in France just west of Germany's Black Forest region. The East Friesland references pertain to a forest planting near the North Sea. Two upright trees, now 25 feet high, in Durand-Eastman Park seem identifiable with the wild weeping form of Silver Fir. Its present good appearance seems to indicate a greater tolerance of an adverse climate than any strain of Silver Fir so far grown here. Weeping Silver Fir first came to Highland Park from Manda in 1905; the existing trees may have been propagated here later.

Abies amabilis, (Loud.) Forbes
CASCADE FIR

B. C. to Oregon

Forbes - Pinetum Woburn. 1839

Bailey 93 (1948); Dom. For. Serv. 68 (1949)

Cascade Fir has endured rather than thrived in Rochester. It reached here by way of Veitch Nurseries, England, in several importations from 1899 to 1905. Only one tree remains in Highland Park in a protected spot. Its growth has always been noted as slow and the surviving tree is about 22 feet high.

Abies balsamea, (L.) Miller
BALSAM FIR

e N. America

Miller - Gard. Dict. 1768

Bean I, 120 (1950); Peattie 57 (1950)

The Balsam Fir is not long-lived when planted in Rochester. Plantings were made throughout the parks from a purchase of 100 plants in 1904 from R. Douglas Sons, Waukegan, Illinois. None of these now survive. Our oldest plants are in Durand-Eastman Park. They were received as var. macrocarpa from the Arnold Arboretum in 1920, but observation of their coning here indicates that these, at least, do not differ from the type (v. Viguié et Gaussen). Cones are produced on young trees such as were planted in Highland Park from a local nursery in 1950.

Abies cephalonica, Loud.
GREEK FIR

mts. of Greece

Loudon - Gard. Mag. 1838

Viguié & Gaussen 118 (1929); Wyman 112 (1951)

Though subject to burning of the needles in severe winters, Greek Fir does make a good specimen tree. For planting in Durand-Eastman Park, several seedlings were obtained from Hick's Nurseries, Long Island, in 1922. These are now handsome trees of 25 and 30 foot heights. One tree of this lot is a hybrid. One older tree remains in Highland Park, a venerable specimen 60 feet in height, in good health and coning. The plant received here in 1905 as A. Reginae-Amaliae from the Arnold Arboretum seems not distinguishable from typical Greek Fir, although it

has been cited as the var. Apollonis (A. D. Slavin in Chittenden - Conifers in Cultivation).

Abies cilicica, (Ant. & Kotschy) Carr.
CILICIAN FIR Asia Minor, Syria

Carriere - Traite Conif. 1855

Dallimore & Jackson 125 (1948); Pardé 74 (1938)

Many plants have been received at Highland Park as Cilician Fir, but cone studies have narrowed down the correct specimens to two trees, now 20 and 32 feet tall. They are, quite possibly, the two received from Ellwanger & Barry in 1918. As generally reported, this fir suffers badly from winter burning and it cannot be recommended as an ornamental tree for this area. Though associated in nature with the hardy Cedar of Lebanon, it lacks the ability to thrive as that tree has here. Dallimore in the recent RHS Dictionary of Gardening notes that it is uncommon in cultivation.

Abies concolor, (Gord.) Hoopes
WHITE FIR w N. America

Hoopes - Book Evergr. 1868

Bailey 93 (1948); Wyman 111 (1951)

The only reservation to naming White Fir as the preferred fir to grow in this region arises from the weakness of old specimens in recent wind storms. The earliest record of acquisition is 1895 from Ellwanger and Barry. One of these now approaches 70 feet in height. One remaining tree of those labelled f. violacea has finally been rejected as not truly representative of that forma.

Abies Ernesti, Rehd.
WILSON FIR w China

Rehder in Jour. Arn. Arb. 1939

den Ouden 55 (1949); Pourtet et Duchaufour 97
(1944)

Though their source remains unknown, two young trees have borne cones in the past few years that seem to confirm the identification by needle characteristics of this West China fir. According to Cheng

it is widespread in the mountains of West China in the lower altitudes. First known as A. Beissneriana and not widely grown at present, it seems a fir that may well become an important ornamental. As time goes on familiar names become confused, hence Ernest Fir as proposed by Standardized Plant Names is rejected here and Wilson Fir substituted for English usage.

Abies Fargesii, Franch.

FARGES FIR

c China

Franchet - Jour. de Bot. 1899

Bean I, 122 (1950); Hillier in Chittenden 226
(1932)

A leaderless plant, only, remains in the Highland Park pinetum from Wilson's #4451, as distributed by the Arnold Arboretum in 1915. As Mr. Hillier notes, there is pubescence on some branchlets, especially the lesser ones where it is thick in the slight grooves of the stem. Its habit of growth seems to be in response to difficulties with our winter climate, as erect branchlets have started up only to be killed back. It is vigorous within its height limits of six feet, spreading to twelve feet.

Abies homolepis, S & Z.

NIKKO FIR

Japan

Siebold & Zuccarini - Fl. Jap. 1842

Dallimore & Jackson 139 (1948); Wyman 112 (1951)

In Rochester Nikko Fir has prospered very well. It seems to be the preferable tree of the shining dark green, white-banded reverse, needled group. It is conspicuous among firs by its bark, reddish and flaking off in small patches. Our oldest tree (Veitch 1906) is now about 55 feet tall and in good condition.

Abies homolepis var. *umbellata*, (Mayr.) Wils.

GREENCONE NIKKO FIR

Japan

Wilson - Conif. Taxads Japan. 1916

Viguié et Gaudsen 541 (1929); Slavin in Chittenden 92 (1932)

The first plantings of this variety, which appears to differ only in the color of the cones, have proved to be normal purple-coned Nikko Fir. In Durand-Eastman Park are true green-coned plants raised from seed, Wilson's #7707, from 1,500 meters elevation in the mountains at Nikko. We received small plants from the Arnold Arboretum in 1918.

Abies koreana, Wils.

KOREAN FIR

Korea

Wilson in Journ. Arn. Arb. 1920

Bean I, 126 (1950); den Ouden 63 (1949)

One plant received from the Arnold Arboretum in 1921 and grown in a favorable situation in Durand-Eastman Park represents this alpine species from southern Korea and the island of Quelpaert. Though it has coned for several years, our Korean Fir has reached only 15 feet in height. It has the stiff habit of a high mountain tree.

Abies lasiocarpa, (Hook.) Nutt.

ROCKY MOUNTAIN FIR

w N. America

Nuttall - N. Am. Sylva. 1849

Bailey 92 (1948); Dom. For. Ser. 66 (1949)

Early plantings from Veitch in 1899 were noted by John Dunbar as very hardy and quite promising. However, as with Balsam Fir, the promise of good growth in young plants never has been fulfilled by shapely mature specimens. The Veitch plants are gone, the oldest tree in Highland Park is about 30 feet tall, a narrow-columnar tree. A younger tree in Durand-Eastman Park is still good in appearance and from 1938 to 1948 grew from 8 feet to 14 feet.

Abies lasiocarpa var. *arizonica*, (Merriam) Lemm.

ARIZONA CORK FIR

Ariz. & N. Mex. to Col.

Lemmon in Sierra Club Bull. 1897

den Ouden 48 (1949); Pardé 86 (1938)

European authorities recognize Arizona Cork Fir as a distinct species. If it must remain as a variety of *A. lasiocarpa*, its variance from typical material should be better known. Its natural adaptations to a dryer and hotter climate greatly increase

its worth as an ornamental in the Eastern states. Its light blue-green, glaucous needles are as striking as the lighter color forms of Picea pungens, and in texture and habit the fir is much to be preferred. In Europe where it has been widely tested its hardiness has been well proven. First imported from the Veitch nursery in 1906, a Highland Park tree now is 40 feet high with a half inch of corky bark developed. Younger trees in Durand-Eastman Park are perfect specimens branched to the ground.

Abies nephrolepis, (Trautv.) Maxim.

KHINGAN FIR

e Sib., n China, Korea

Maximowicz in Bull. Acad. Sci. St. Petersburg. 1866

Bean I, 128 (1950); Dallimore & Jackson 153 (1948)

The cultural requirements of Kinghan Fir are too exacting to class it as a good ornamental. However, on a hillside with north-east exposure at Durand-Eastman Park one tree has grown from 12 feet in 1938 to nearly 40 feet in 1953, holding its lower branches in good condition. Our trees are from Korea, E. H. Wilson's # 11,252, where its habitat is in the mountains.

Abies Nordmanniana, (Stev.) Spach

NORDMANN FIR

Cauc., Asia Minor, Greece

Spach - Hist. Nat. Veg. Phan. 1842

Bailey 90 (1948); Boom 93 (1949)

The esteem in which Nordmann Fir is held as an ornamental seems well deserved from the several trees in the collections here. They are approaching their mature stages in good condition. Coning seems more consistent every year on Nordmann than any other fir we grow. The first acquisition date recorded is 1902 when young plants came from the Ellwanger and Barry nursery.

Abies Nordmanniana f. *tortifolia*, Rehd.

TWISTLEAF NORDMANN FIR

hort. form

Rehder in Jour. Arn. Arb. 1923

Bailey 91 (1948)

For a time from the Bayard Cutting estate, Oak-

dale, Long Island, surplus plants were sold by Mr. C. W. Knight under the name of Westbrook Gardens. In 1923 we received some firs from this source. A mixup in labelling followed and the name A. numidica became attached to the tree in Durand-Eastman Park now determined to be this plant. Typical Nordmann Fir cones have been borne in recent years by this fine specimen tree now about 20 feet high.

Abies procera, Rehd.

NOBLE FIR

Calif. to Wash.

Rehder in Rhodora. 1940

Bailey 94 (1948); Peattie 198 (1953)

In no situation has this west coast species of fir been able to accomodate itself to the change of climate. Nor does its blue-green needled form, f. glauca, produce over the years, it has been here since 1918, anything but a stunted, poor specimen.

Abies recurvata, Mast.

MIN FIR

w China

Masters in Jour. Linn. Soc. Lond. Bot. 1906

Cheng 98 (1939); Larsen 63 (1948)

This year (1953) is the first coning for Min Fir in Rochester. Seedlings received in 1914 from Vicary Gibbs of England have progressed in Durand-Eastman Park far ahead of those in Highland Park. In height they have reached 30 feet. These represent Wilson's #4051 from a western Szechuan locale near the Min River.

Abies sachalinensis, (Fr. Schmidt) Mast.

SAGHALIN FIR

n Japan

Masters in Gard. Chron. 1879

Dallimore & Jackson 165 (1948); Kempe pl. 10 (1940)

One tree now over 20 feet high in good condition at Durand-Eastman Park indicates that we can keep Saghalin Fir in our collection; an older tree in Highland Park is in poor shape. The younger tree came from the Arnold Arboretum in 1919, a seedling from the E. H. Wilson collection #7316. A single tree in Durand-Eastman Park is labelled for the var.

nemorensis, a cone-variant only, but as no cones have been observed its authenticity is not yet established.

Abies sibirica, Ledb.

SIBERIAN FIR

n Asia

Ledebour - Fl. Alt. 1833

Bailey 82 (1948); Pardé 77 (1938)

The R. Douglas Sons Nursery of Waukegan, Illinois in 1905 supplied the lone Siberian Fir which now with a 3-stemmed trunk reaches nearly 40 feet in height in Highland Park. Its condition is only fair, without lower branches, and in appearance it is not an ornamental tree.

Abies Veitchii, Lindl.

VEITCH FIR

mts. of c Japan.

Lindley in Gard. Chron. 1861

den Ouden 79 (1949); Pardé 78 (1938)

Named for its discoverer, John Gould Veitch, on Mt. Fujiyama in 1861, and grown by the Veitch Nursery from seeds from Japan in 1879, this fir, quite fittingly, came to Highland Park as 3 good-sized (4') plants from the Veitch Nursery in 1899. They have prospered here and have reached the 60-70 foot height of mature trees in the Japanese forests. Veitch Fir has long been noted as showing the greatest contrast in firs between the green of the upper surface and the whiteness of the under surface of the needles.

Abies Veitchii var. *olivaceae*, Shir.

GREENCONE VEITCH FIR

mts. of c Japan

Shirasawa in Bot. Mag. Tokyo. 1913

Wilson 62 (1916)

From the Wilson seed collection #7525 in the year 1914 numerous seedlings were raised but the specimens are now reduced to one tree in Durand-Eastman Park whose cones borne in some abundance this year (1953) show no purple tints at all. No other marked difference appears in the cultivated plants from typical Veitch Fir with which it is mingled in its native stands.

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